Weaning Beef Calves

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Factsheet

ORDER NO. 10-015 AGDEX 421/23 FEBRUARY 2010
Replaces OMAFRA Factsheet 03-115, Weaning Beef Calves

Weaning time is stressful for the mother cow and her calf. Traditionally some Ontario cow-calf producers wean calves the day they leave the farm, thus avoiding the critical attention required to ensure calf health and continued performance. Others wean calves on the farm as part of a complete pre-conditioning program before sale or final life stage prior to slaughter.

Calves typically walk up to 40 km the first two days after weaning. As well, calves sold upon weaning often take time to adjust when they arrive at a feedlot. Weaning stress may be associated with problems for newly arrived calves to the feedlot. Freshly weaned calves at the feedlot often show signs of:

- restlessness, not settling down
- constant bawling
- fence-line walking
- greatly reduced feed intake
- sickness

To lessen the impact of weaning on health and weight gain, producers can prepare calves for weaning and choose a weaning method that reduces stress.

PREPARATION

Producers can begin preparing calves for weaning at birth.

- Consider removing horns and castrating all male calves in commercial operations within the first two weeks of birth.
- If not weaned at birth, then at least four weeks prior to weaning reduce calf and operator stress by:
  - vaccinating and dehorning calves while they are still with their mother. Plan to use a pain block on the calf prior to dehorning
  - offering a creep ration and ensuring calves are familiar with drinking out of the type of water source they will have access to after weaning
  - castrate all male calves if they are still intact. Castrated calves sell for significantly higher value than intact calves.
- Focus on health, feed and water to assist calves during the weaning transition period.

VACCINATION AND HEALTH CARE

Consult the herd veterinarian to develop a vaccination program. Generally vaccinate calves as follows:

- Respiratory diseases IBR, BVD, BRSV and PI3 — A combined vaccine for these respiratory diseases is often called a 4-way vaccine. Vaccines come as either modified-live or killed vaccines. Booster the vaccines two to four weeks after initial treatment, especially if using killed vaccine.
- HS (*Haemophilus somnus*) — The HS vaccine prevents shipping fever.
- Clostridial diseases — There are several species of *Clostridium* bacteria that can cause disease in cattle, such as diarrhea and blackleg. The vaccine against this group of diseases is commonly referred to as a 7- or 8-way vaccine.

Research shows performance improves if control for worms, lice, warbles and other parasites is used.

During weaning, check calves at least twice daily for signs of illness. Identify and treat sick calves quickly. Consult a veterinarian for treatment protocols.

Ministry of Agriculture, Food and Rural Affairs

Ontario

FEEDING

The nutrient content and palatability of forages and creep rations are important for calves during weaning. A high nutrient content in the ration allows the calf to get the amount of nutrients it needs per day as its rumen develops. Palatability ensures the calf will start to eat the feed.

A general rule is to feed a second-cut grass/legume mix hay with a balance of grain. An ideal grain mix for the weaning period contains a high percentage of oats and limited high-energy grains such as barley and corn. Test forages and grain mixes to be sure a balanced ration is provided.

It is critical to ensure that calves can get to the feed. Consider allowing the calves to access higher quality pasture that the cows cannot access at the same time. A creep feeder is ideal for feeding grain mixes. In both cases, ensure all calves receive adequate bunk feeding space. Calves should then be used to dry feed upon weaning.

Calves will consume 2.5 per cent to 3.0 per cent of their body weight in dry feed each day. Begin creep feeding at least four weeks prior to weaning to minimize stress and allow calves to be adjusted to solid feed.

WATERING

Access to plenty of good quality water is essential throughout the weaning process. Calves need adequate amounts of clean water to replace their mothers' milk. After removal from their mothers, calves also need to replace the fluids they expire through constant pacing and bawling. Have more than one water bowl to allow calves easier access to water. Place waterers in several places in the cattle yard. If the calves are unfamiliar with drinking water from a trough, let the water overflow a bit so that it makes a trickling sound, attracting the calves to the water bowls.

WEANING

There are several weaning methods for calves. Generally, the less stress on the calves the better they will perform during and immediately after weaning.

Fenceline Separation

Fenceline weaning, where cows and calves are separated by a fence, has proven less stressful than complete separation. Keep calves on the side of the fence that was their home prior to weaning where they are familiar with water and feed locations. Ensure that the fence is secure enough to prevent calves and cows from getting back together. The cattle will have some nose to nose contact without challenging the fence. They spend most of the time away from the fence grazing, decreasing their fenceline visits over time. Within a week the weaning process is complete. Calves weaned this way tend to bawl less and gain more weight than calves weaned under a complete separation system.

Complete Separation

If the fenceline method is not possible, move the cows far enough away from the calves so that neither group can hear the other. Again, in an ideal situation, the calves remain at the location where they were prior to weaning and the cows are moved.

If the calves must be moved to a new area be sure to adequately prepare the new location. Place feed where calves can easily find and adjust to it. Put waterers in several places in the cattle yard.

No matter which separation method of weaning is selected, make sure there are areas that allow calves to stay dry and sheltered. Never confine calves in a barn that lacks natural light and fresh air. Dark locations with stale air are ideal environments for spreading disease.

Two-Step Process

In the two-step weaning process, calves and cows remain together during weaning to reduce the stress of separation.

Step 1

Clip a reusable plastic anti-sucking device into a calf's nostrils (without piercing the septum). This painless device blocks access to the cow's teats, effectively preventing a calf from sucking while allowing it to remain with its mother. Calves wear the devices for four to seven days.

Step 2

Separate calves from the cows and remove the plastic anti-sucking devices.

Research on weaning calves using the two step process has shown that calves walk one-third the distance that regularly weaned calves do during the first two days post weaning.

Early Weaning

If forages might be a limiting factor on the farm, consider weaning early. Many studies show that, per pound of calf gain, it is more cost-effective to feed a calf solid food than to feed the cow extra feed so she can produce enough milk to achieve the same calf gains. The weaning ration may be more expensive per tonne than cow feed, but calf intake at 4.5–6.8 kg/day (10–15 lb per day) leading to gains of 0.9–1.4 kg/day (2–3 lb per day) means weaning early can produce a lower-cost gain.

CONCLUSION

Preparing calves for weaning and selecting an appropriate weaning method will help calves adjust to a change in diet and manage the stress associated with the transition period. Make effective preparation and low-stress weaning a part of your management program to reduce the impact of weaning on calf health and weight gain

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POD
ISSN 1198-712X
Également disponible en français
(Commande n° 10-016)

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